Claims

[c1] I claim as my invention:

1. A golf ball comprising:

a core; and

a cover formed over the core, the cover composed of a thermosetting polyurethane material formed from reactants comprising at least one polyurethane prepolymer and a curative blend comprising 4,4'-methylenebis-(2,6-diethyl)-aniline and a second curing agent selected from the group consisting of N,N'-bis-alkyl-p-phenylenediamine, N,N'-dialkylamino-diphenylmethane with tetrapropoxylated ethylenediamine and an aliphatic diamine;

wherein the cover has an aerodynamic surface geometry thereon.

[c2] 2.The golf ball according to claim 1 further comprising at least one boundary layer disposed between the core and the cover.

[c3] 3. The golf ball according to claim 1 wherein the polyurethane prepolymer is a polypropylene glycol terminated toluene diisocyanate prepolymer with a nitrogen-carbon-oxygen content ranging from 3.0% to 6.0%.

[c4] 4. The golf ball according to claim 2 wherein the boundary layer is composed of a blend of ionomers.

[c5] 5. The golf ball according to claim 1 wherein the polyurethane prepolymer is a polytetramethylene ether glycol terminated toluene diisocyanate prepolymer with a nitrogen-carbon-oxygen content ranging from 3.75% to 7.0%.

[c6] 6.A golf ball comprising:

a core comprising a polybutadiene mixture;

a boundary layer formed over the core; and

a cover formed over the boundary layer, the cover composed of a thermosetting polyurethane material formed from reactants comprising at least one polyurethane prepolymer and a curative blend comprising 4,4'-methylenebis-(2,6-diethyl)-aniline in an amount of 65 parts per one hundred parts of the curative blend and N,N'-bis-alkyl-p-phenylenediamine in an amount of 35

parts per one hundred parts of the curative blend;

wherein the cover has an aerodynamic surface geometry thereon.

[c7] 7.A golf ball comprising:

a core comprising a polybutadiene mixture, the core having a diameter ranging from 1.35 inches to 1.64 inches and having a PGA compression ranging from 50 to 90;

a boundary layer formed over the core, the boundary layer composed of a blend of ionomer materials, the boundary layer having a thickness ranging from 0.020 inch to 0.075 inch, the blend of ionomer materials having a Shore D hardness ranging from 50 to 75 as measured according to ASTM-D2240; and

a cover formed over the boundary layer, the cover composed of a thermosetting polyurethane material formed from reactants comprising polytetramethylene ether glycol terminated toluene diisocyanate prepolymer and a curative comprising 4,4'-methylenebis-(2,6-diethyl)-aniline and a second curing agent selected from the group consisting of N,N'-bis-alkyl-p-phenylenediamine, N,N'-dialkylamino-diphenylmethane with tetrapropoxylated ethylenediamine and an aliphatic diamine, wherein the thermosetting polyurethane material has a Shore D hardness ranging from 30 to 60 as measured according to ASTM-D2240, a thickness ranging from 0.015 inch to 0.044 inch, and an aerodynamic surface geometry thereon.